Two Channel Infrared Modulator • Model MOD 232

Description:

The MOD 232 Modulator is designed to operate with a TX9 emitter operating on 2.3/2.8/3.3/3.8 MHz frequency. Each microprocessor controlled MOD 232 modulator can handle up to two audio channels. Baseband outputs can daisy-chain two MOD 232 together for four-channel operation. Flexible combination jacks permit balanced/unbalanced line-level inputs. Carrier frequencies are controlled by the microprocessor and a frequency synthesizer for rock-solid frequency control.

Applications:

• Churches • Schools • Auditoriums • Conference Rooms • Theaters

MOD 232 Modulator:

Size, Weight: Color: Rack Mount:

Power Supply:

Modulation: Carrier Frequency:

Signal-to-Noise Ratio: Frequency Response: Total Harmonic Distortion: Audio Processing:

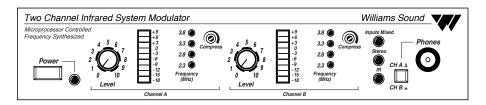
Auto Carrier Shut-Off:

Power Switch:

Power Indicator: Audio Level Controls: Audio Indicators: Carrier LEDs: Compress Control: Input Mix LED: Stereo LED: Phones Switch: Phones Output: Infrared Test LED:

MOD 232 Front Panel:

8.5" W x 8.2" D x	x 1.7" H (21.5 cm x 20.8 cm x 4.4 cm), 3.1 lbs (1.5 kg)
Black epoxy pain	t with white legends
	de, 1 rack space high, one or two modulators may be mounted in a ace with RPK 005 (single) or RPK 006 (double) Rack Mount Kits
Wall Transformer	, 24 VAC, 50-60 Hz, 15VA
North America:	TFP 016, UL/CSA
Europe:	TFP 027-01, 2-pin Schuko plug, CE
UK:	TFP 027-02, 3-pin UK plug, CE
FM Wideband, +5	50 kHz deviation, 50 uS pre-emphasis
Channel A: Select	table, 2.3/2.8/3.3/3.8 MHz,
Channel B: Select	able, 2.3/2.8/3.3/3.8 MHz
More than 60dB	
30 to 16,000 Hz,	+1 dB, -3 dB, electrical response
Less than 2%, ele	ctrical response
Compression (slop	pe) adjustable from 1:1 to 4:1
Switchable comp	ression gain: Moderate: 16dB. Max: 33dB
15-minute timer	shuts off carrier when no audio is present (can be disabled)



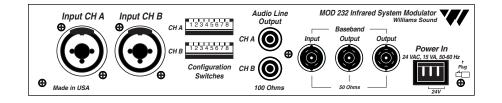
Two-position push button, ON/OFF

Gree	n LED
CHA	and CHB Input Level, rotary knobs
CHA	and CHB Audio Level, 10-segment LED's
4 gre	en LED carrier "on" indicators per channel (indicates frequency, malfunctions)
1:1 to	o 4:1
Indicates inputs A and B audio are mixed and transmitted by CHA and CHB off	
Indic	ates stereo mode
Selec	ts CH1 or CH2 for phones when not in stereo mode
1/4"	TRS headphone jack. Accepts stereo, mono and any impedance phones.
IR LE	D for receiver testing, monitoring and audio signal testing.

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MOD 232 Rear Panel:



Power Input: Audio Input Jack: Mic Level:

Line Level: Audio Line Output Jacks:

Configuration Switches:

Baseband Input Jack:

Baseband Output Jack:

Approvals: Operating Requirements: Warranty:

3-Pin Molex, 24 VAC, 50-60 Hz, 15 VA

CHA and CHB combination XLR/TRS jack	
Balanced, Lo-Z, 100 μ V min. to 90 mV max., 1 mV nominal, 3k Ω input impedance, sup-	
plies switchable simplex power per DIN 45596 for condenser mics	
Balanced or unbalanced, 21 mV min. to 10V max., 212 mV nominal, 100 $k\Omega$	
RCA Jack, CHA and CHB, 500 mV, unbalanced, 100 Ω source impedance, load imped-	
ance must be greater than1 $k\Omega$	
CHA and CHB 8-position DIP switch, selects Mic/Line input, compressor gain, simplex	
power, discrete or mixed inputs, carrier frequency, channel disable, auto shut-off timer	
BNC, allows mixing with additional MOD 232 Modulator (4CH operation), 100 mV, 50	
Ω input impedance, use with MOD 232 or MOD 112 (111), BNC, RG-58 Cable	
Two BNC jacks carry baseband signal, 100 mV/channel, 50 Ω source impedance, for use	
with WIR TX9 or MOD 232 only	
CE, FCC, RoHS, WEEE	
0-50° C ambient temperature, non-condensing, non-corrosive atmosphere	
5 years on modulator*	

*90 days on accessories.

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Bid Specs:

The infrared system shall consist of separate modulator and emitter units, with portable receivers. The modulator unit shall be a half-rack style, metal enclosure. A rack panel shall be available to mount one or two modulator units within a single EIA rack space. An adjustable floor stand and mounting bracket shall be available to mount the modulator and emitter together for portable operation.

The modulator shall provide two channels of selectable FM carrier signals, 2.3/2.8/3.3/3.8 MHz, so that a single modulator can be used to simultaneously transmit up to two channels, and two modulators can be ganged together to transmit up to four channels simultaneously. The carrier signals shall use 50 kHz deviation and 50 µS pre-emphasis. The carrier signals (baseband) shall be transmitted to one or more emitters by 50 ohm RG58 coaxial cable with BNC-type connectors. A BNC-type baseband input jack and baseband output jack shall be provided on the modulator. The modulator shall be powered by an external 24 VAC, 10 VA, 50-60 Hz power supply, connected via a three-pin Molex power connector.

It shall have a rocker-type power switch, power LED indicator, four carrier indicator LEDs and two bar graph-type LED audio indicators. The modulator shall have a modulated IR LED on the front panel for testing purposes, and a headphone jack that accommodates mono and stereo 1/4" headphones, and channel monitoring switch. The modulator shall have two rotary audio input level controls, and a screw-driver adjustable control for varying the input compression from 1:1 to 4:1. The modulator shall have two timers that automatically shut off the carriers when there is no audio signal present for 15 minutes. The modulator shall have two combination input jacks that accept 3-pin XLR plugs for balanced micro-phone input or 1/4" TRS plugs for balanced or unbalanced line-level inputs. The XLR inputs shall be low impedance, accept signal levels from 100 μ V to 90 mV and supply 15 V simplex power per DIN45596. The TRS jacks shall accept balanced or unbalanced audio signal levels from 21 mV to 10 V. The modulator shall have CE, FCC, RoHS, and WEEE approval and carry a five-year parts and labor warranty.*

The modulator shall be the Williams Sound Corp. model MOD 232.

*90 days on accessories.

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